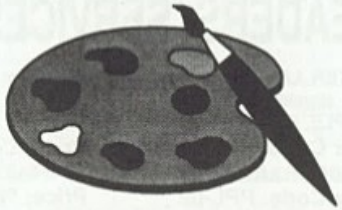
SAMPaint



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We could spend page upon page quoting from Carol's review or listing the features of SAMPaint.

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Vol.8 №5. **January 1995.**

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NEWS ON 4

AMIGA MISSES CHRISTMAS

There is still no news of a settlement in the long running Commodore liquidation fiasco. Despite promises as early as July last year, that a sell-off of Commodore's assets was just around the corner, Christmas has come and gone without a new owner being found.

Although there has been stocks of Amiga 600 and 1200 machines in Europe during the last few months UK dealers have been unable to lay their hands on machines for the Christmas market. Surprisingly, most retailers would still like to see the Amiga return to the market .

It now look certain that the Commodore empire will be split into several companies with the Amiga technology possibly going to one of the big Far East companies.

CONSOL SALES SLUMP

Early reports put 1994 sales of both Sega and Nintendo systems way down on previous years. Major discounting by high-street multiples in the last quarter of the year may have slowed the decline, but at the expense of smaller retailers.

The new Consol formats like 3DO and Jaguar look set to splinter the market even more in 1995 so is the writing on the wall for the two giants of the market? Only time will tell...

A GOLDEN SOUVENIR

Fancy a real momento of the SAM Coupé? No, don't worry, SAM is still here, but there are only a limited number of special souvenir ASICs available from Fred Publishing.

When SAM was nearing its launch there were just 40 prototype ASICs, hand-produced for Bruce Gordon by VLSI in the USA. Clearly identifiable because of their gold finish, they were made as a final test of the chips design and so that a few SAMs could be hand assembled for in-house testing and for release to eager developers. This one set of chips alone cost Miles Gordon Technology £50,000 and I can tell you (cos I was there) that the security involved in their shipping to Swansea was fantastic.

Once production SAMs were produced most of these early machines were recalled and scrapped. But, luckily, most of these prototype ASICs survived.

Now, Dundee based Fred Publishing, have secured all of the remaining chips and are giving people the chance to own part of SAM history. Professionally framed and mounted on a dark green backing, each comes a with a marble effect plaque which explains the use of the ASIC and is personally autographed by the man himself - the one and only - Bruce Gordon. The cost? Well I'm glad to say they won't cost us over a thousand pounds each, this slice of history can be yours for just £80 including postage and packing. Ring Fred on 01382-535963 to check availability before sending off your order, and hurry - stocks are, of course, very limited so this offer can *never* be repeated.

My gold ASIC? Well that is still in one of only three prototype SAMs known to survive.

Credits:-

URGENT we need your news. Anything you think other people should know about. Each item printed earns the contributor 3 months extra subscription *(please claim when next renewing)*.

The Editor Speaks

A very happy 1995 to you all from Jenny, myself and all those who help produce ***FORMAT***. May this year be a good one for all of you.

It is always difficult to write the January editorial because it comes so soon after writing the December one. The hope is that this issue will be printed, packed up, and all ready to go out before Jenny deserts me for her Christmas holiday (not that it isn't one long holiday here at ***FORMAT*** Towers). So, just days after racking my brains to fill the December issue I've got to come up with something new and interesting for this issue.

I've had several telephone calls recently about special cable making. As Mark Hall at Blue Alpha is not available at the moment to make up one-off cables we have arranged for a local company to produce things for us. If you need a cable for a specific monitor/printer/whatever, then send us details of the pin-outs for each end together with a stamped addressed envelope and we will get a quote for you. It is no good just saying it is a XYYQZ monitor with a 9 pin socket, we need the full details from the manual. Hopefully this service will keep things flowing until Mark is back on the scene.

Now a couple of little printing errors, both affecting articles by Carol Brooksbank. In the November issue a couple of lines mysteriously appeared in her *Something Colourful* article. At the start of the listing on page 20 the first three lines should not have been there. We are not sure how these got into the listing but you will not be able to assemble the program while they are there. Next, in last months review of SC_WORD *pro* a very large block of text got duplicated. It happened somewhere at Carol's end as she copied the files onto a disc for me. Sorry for any problems these little errors may have caused and thanks to the readers who took the trouble to ring up and point them out.

On the subject of articles, get writing. We need more articles (Spectrum, SAM or general computing) to help fill these pages. Even if you have never written an article for a magazine before, if you have an idea or a piece of knowledge you want to pass on, we will help you get into print. ***FORMAT*** needs YOU.

Romantic Robot, the illustrious purveyor of Spectrum hardware, are still selling off the last of their Multiface stocks. They have about 100 Multiface 128s left and are making a really good New Year offer to ***FORMAT*** readers. Until stocks run out they are selling the MF128 at £19.95 with both Lifeguard and Genie at £5 each. But hurry, with these low level of stocks, you could be disappointed if you delay sending off your order. Romantic Robot can be contacted on 0181 200 8870 or you can send you orders to them at 54, Deanscroft Avenue, London, NW9 8EN.

Right, that is all for now. I hope you have all recovered quickly from the Christmas festivities and are now back to using your computers without those constant interruptions from people wanting you to 'eat, drink and be merry'. I'm now off to the printers so this issue can be packed up before the holiday, ready to go out during the first few days of the year.

Until next month.

Bob Brenchley, Editor in need of a rest.

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A fast fractal generator for the ZX Spectrum. Now you can explore the fascinating world of fractals with this machine code program. Up to 200 shades on screen gives clear, crisp fractal pictures which can then be zoomed and expanded. Not just the Mandelbrot set but 18 different types can be made. Generates fractal music, you can hear the computer generate the fractal. Ready to use on disc for DISCiPLE/Plus D complete with ready-converted file for use with our SPECMAKER emulator on SAM.

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UNIDOS version 2. The advanced DOS from Steve Warr for the PLUS D and DISCiPLE. Same DOS system file for BOTH interfaces. Random Access Files; Sub Directories; Hundreds of files on one disc; Hidden files; Protected files; Copy files of ANY length; incredibly versatile Screen Dump routines; Error Trapping and MANY more features. Compatible with all Spectrums (+2a/+3 in 48K mode). Over 20 programs now included on the disc. ***As used in the new DXI.***

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PC-SUITE From the same author as SPECMAKER. Now you can transfer your IBM data files by reading and writing IBM discs (720K format) on your SAM Coupé. PC-SUITE will even let you format IBM discs on your SAM. Write and edit SAM Basic programs on your PC. Use PC-SUITE to copy SAM data files to PC so you can print them on that high quality laser printer at work... Supplied on 3½" disc. nb. This is not a PC emulator.

As used by Format Publications to transfer articles and programs for this mag.

PRICES:	Non Members	INDUG Members
The Fractal Collection	£5.95	£4.95
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UNIDOS	£25.95	£19.95
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File Convertor*	£5.30	£4.00
Hacker's Workbench*	£9.90	£8.50

* GDOS programs still available

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Spectrum Owners
Don't forget to say if ordering for PLUS D or DISCiPLE and state disc size - 3½" or 5¼" (80 track only).

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SHORT • SPOT

YOUR HINTS, TIPS AND PROGRAMMING IDEAS

Edited By:- John Wase.

Happy New Year everyone. Here we are at the start of yet another year of Short Spots which I hope all you SAM and Spectrum enthusiasts out there are going to enjoy. I still need lots more of your snippets to fill these pages during 1995 so get your fingers tapping on the keyboard and send them off (before you forget) to the address on page 18.

We start the new year with Robert Brady of Evington, Leicester, he who wrote the 'Pluralizer' that we printed last month (I do hope you are all working on the little project I set you). Anyway, this month Robert provides us with a function. Robert mentions that he rather likes functions, because they don't need to be rewritten to take account of the variables you're using. There is a demo of its use in the listing, so you'll be all right. Oh, and it converts a numerical date into a full alphabetical one. Come on, now, just type in DayDate. Give it a whirl!

```
  10 PRINT FN ddate$
1000 DEF FN mon$(m)=("January"
     AND m=1)+("February" AND m
     =2)+("March" AND m=3)+("Ap
     ril" AND m=4)+("May" AND m
     =5)+("June" AND m=6)+("Jul
     y" AND m=7)+("August" AND
     m=8)+("Sept" AND m=9)+("Oc
     tober" AND m=10)+("Nov" AN
     D m=11)+("Dec" AND m=12)+(
     "ember" AND m>8 AND m<>10)
1010 DEF FN mn=VAL DATE$(4 TO 5
     )
1020 DEF FN month$=FN mon$(FN m
     n)
1030 DEF FN yr$=DATE$(7 TO )
1040 DEF FN year$="19"+FN yr$
1050 DEF FN stnrd$(d)=("st" AND
     (d=1 OR d=21 OR d=31))+("
     nd" AND (d=2 OR d=22))+("r
     d" AND (d=3 OR d=23))
1060 DEF FN th$(d)=FN stnrd$(d)
     +("th" AND FN stnrd$(d)=""
     )
1070 DEF FN dt$=DATE$( TO 2)
1080 DEF FN dat$=FN dt$+FN th$(
     VAL FN dt$)
1090 DEF FN ddate$=FN namda$(FN
      dayno+FN alt-(7 AND FN da
     yno+FN alt>6))+" the "+FN
     dat$+" of "+FN month$+" "+
     FN year$
1100 DEF FN namda$(a)=("Sun" AN
     D a=0)+("Mon" AND a=1)+("T
     ues" AND a=2)+("Wednes" AN
     D a=3)+("Thurs" AND a=4)+(
     "Fri" AND a=5)+("Satur" AN
     D a=6)+"day"
1110 DEF FN dayno=IN 49391 BAND
      15
1120 DEF FN dte$=FN dat$+" "+FN
      month$+" "+FN year$
1130 DEF FN alt=0
1140 REM If day is wrong then
     increase value of FN alt i
     n line 1130 by one, and ke
     ep going until you get the
      correct answer - I have n
     o idea why this is needed.
      Has anbody got a clue as
     to what the smeg is going
     on?
```

Many thanks, Robert: send us a few more sometime, please.

Next, a letter about the SAMBus power problems mentioned in the November issue. Cliff Jackson of Southampton writes that he has used a SAMBus continuously for some two years now, with a 1Mb RAMpack, a Comms interface and the SAMCo Hardware Development interface (built from their kit), more or less permanently connected with an Analogue to Digital

convertor i/f and an RS233 line monitor plugged in occasionally in addition to any circuits connected to the I/O ports of the HDK which provides +5V for their operation. An examination of the SAMBus circuit shows that a regulated 5V supply is all that is needed, and Cliff mentions that he was able to buy one of the dreaded not-quite-SAM power supplies for under a fiver from Greenweld Electronics. While these are *definitely* not be recommended for SAM itself (and would invalidate any guarantee), modifying them for this purpose should prove no problem, as they have an internal regulated 5V at pin 1 of their 6-pin DIN plug. All you need is a short 'Flying lead' with a 6-pin DIN line socket at one end an d a 3.5mm jack plug at the other. Just one little problem: the hole in the side of the SAMBus is too small for the body of a standard 3.5mm jack plug to enter. There are two solutions: either file away part of the case as necessary, or have a look round for a non-standard plug; those already moulded onto a lead are often small enough.

The connections are very straightforward with the central contact of the plug linking to pin 1 of the DIN socket and the outer (tubular) contact of the plug which normally connects to the braided screen of co-axial cable) linking to pin 3 of the socket.

Just a final point. Some electronic chips resent having signals sent at them before they're powered up. So make sure the plugs from SAM (the proper power supply) and the SAMBus (the one you've modified) both go into the same switched socket.

Many thanks, Cliff.

Now to the prolific Roy Burford of Stourbridge, without whom few Short Spots are complete, and a piece for Spectrum/PLUS D users. Recently, so Roy writes, he obtained a routine from Miles Kinloch. Aptly called DOSPEEK REM, its machine code was ingeniously hidden in a REM. Although the program was intriguing, it could only be passed on easily on storage medium. So Roy has, with Miles' approval, winkled out the code, written it into a program and here it is.

It works in 48 and in 128k Basic. The figure for the number of tracks, 1 and 2 needs 128 subtracting from it. The program is set up for the +D with an offset of 8192 in line 190; change this to 664 to suit the DISCiPLE. By changing the variables b and e, (inputs for these might well be a first enhancement) any range of POKE @ can be read. Roy assumes that the offset steps over the ROM; by removing it one can read its (fixed) values, too.

DOSPEEK is here, folks, so just type it in...

```
  1 REM Source - Miles Kinloch'
    s DOSPEEKREM subroutine whe
    re m/c invisibly embedded i
    n REM
  2 REM Derived by B.C.R.Burfor
    d on ZX Spectrum+ 128K 0111
    94.
 60 IF PEEK 23412=219 AND PEEK
    23422=201 THEN GOTO 120
 80 FOR s=23412 TO 23422: READ
    d: POKE s,d: NEXT s
100 DATA 219,231,042,118,092,00
    6,000,078,211,231,201
120 PRINT "Plus D DOS Memory Co
    ntents"''
140 PRINT "POKE @","Value"
160 LET b=0: LET e=11
180 FOR a=b TO e
190 RANDOMIZE a+8192: REM Store
    s a+8192 in SEED
210 PRINT " ";a," ";USR 23412:
    REM Loads SEED contents to
    get Value
230 NEXT a
```

Many thanks, Roy.

Next, we turn to SAM and Lee Willis. Heard that name before, somewhere. He's sent me five (yes, five) short snippets, all for SAM. The first is palcycle, which Lee wrote after seeing the palette cycling programs in the September and June issues. These both make use of the PALETTE command, which is very user-friendly, but is also rather slow, because it can set only one colour at a time. Lee's program shows how you can use POKE MEM$ to cycle the colours quickly and smoothly. Just call the procedure (Lines 1000 onwards) like this:

Cycle x,y,z x=First palette position y=Last palette position z=Delay (50ths second)

The lines up to 1000 are a little demo!

```
 10 RESTORE : MODE 4: CLS #: F
    OR x=0 TO 15: READ a: PALE
    TTE x,a: NEXT x
 20 FOR y=173 TO 0 STEP -1: PE
    N (y MOD 15)+1: PLOT 0,y:
    DRAW 250,0: NEXT y: OVER 0
 30 OVER 1: FOR r=80 TO 0 STEP
     -1
 40 PEN (r MOD 15)+1
 50 CIRCLE 128,85,r
 60 NEXT r
 70 OVER 0
 80 :
 90 Cycle 1,15,0
999 DATA 0,11,48,56,51,55,63,1
    15,123,115,63,55,51,56,48,
    11
1000 DEF PROC Cycle Start,End,s
    peed
1010 IF NOT speed THEN KEYIN "1
    050": ELSE KEYIN "1050 pau
    se "+STR$ speed
1020 DO
1030 POKE 21976+start,MEM$(2197
    6+start+1 TO 21976+end)+CH
    R$ PEEK (21976+start)
1040 POKE 21996,MEM$(21976 TO 2
    1991)
1060 LOOP UNTIL INKEY$=" "
1070 END PROC
```

Timerloop is a little program Lee came up with to test the speed of Basic commands or routines. Just put the routine/command to be tested between lines 40 and 60, renumbering it as necessary, and run it. The results show how long it takes for 100 executions of the routine. how many executions were completed each second, and how long it took for one loop. You can improve the accuracy by changing noloops in line 15 to a higher value.

```
 10 DEF FN timer=(PEEK SVAR 63
    4)*65536+(DPEEK SVAR 632)
 15 LET noloops=100
 20 POKE SVAR 632,0,0,0
 30 FOR countloop=1 TO noloops
 40
 50 LET qroot=SQR 1163
 60
 70 NEXT countloop
 80 LET fif=FN timer
 90 MODE 3
100 LET s=fif DIV 50,m=s DIV 6
    0,h=m DIV 60,m=m MOD 60,s=
    s MOD 60,f=fif MOD 50
110 PRINT "THE TOTAL TIME FOR
    ";noloops;" LOOPS WAS : ";
    h;"h ";m;"m ";s;"s ";f;"f.
    "
120 LET persec=noloops/((h*360
    )+(m*60)+s+(f/50))
130 LET forone=fif/noloops
140 LET s=forone DIV 50,m=s DI
    V 60,h=m DIV 60,m=m MOD 60
    ,s=s MOD 60,f=forone MOD 5
    0
150 PRINT "THE TOTAL TIME FOR
    ONE LOOP WAS : ";h;"h ";m;
    "m ";s;"s ";f;"f."
160 PRINT "THE NUMBER OF LOOPS
     PER SECOND WAS : ";persec
```

Ellipse simply draws an ellipse. You don't often need to draw an ellipse, but when you do, the need can be quite pressing, so here goes...

Ellipse x,y,w,s,a x=x-coordinate of centre y=y-coordinate of centre w=width of ellipse d=depth (height)

There's a little demo built in, in case you don't follow Lee's explanation.

```
 10 MODE 4: CLS #: PEN 15
 20 PRINT AT 0,3;" ELLIPSE DEM
    O    L.WILLIS "
 30 Ellipse 128,86,50,25,40
 40 Ellipse 128,86,25,50,40
 50 INPUT "X-COORD of CENTRE :
    ";xc
 60 INPUT "Y-COORD of CENTRE :
```

SC_WORDpro

Can your word-processor produce this type of advert at such high resolution quality ?
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SYSTEM REQUIREMENTS :-
512K SAM, with a copy of MASTERDOS (Extra £12 for a copy)
24 Pin Dot Matrix Printer or 360 dpi Bubble Jet Printer.
1MB Ram and mouse recommended, but will work without.

£29.99
(On an Amiga you would have to pay double for a similar program)

Other Sam Coupe Utility software :-

£12.50 SC_ASSEMBLER	Machine code editor, Allows you to type in machine code programs
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£25.00 SC_DTP	Desk Top publishing for 9 pin printers, needs MasterDos.

STEVES SOFTWARE
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```
    ";yc
  70 INPUT "WIDTH : ";w
  80 INPUT "Depth : ";d
  90 INPUT "Accuracy : ";acc
  95 CLS
 100 Ellipse xc,yc,w,d,acc
1000 DEF PROC Ellipse xc,yc,w,d
    ,acc
1005 LET acc=(2*PI)/acc
1010 PLOT xc+w,yc
1015 FOR a=0 TO 2*PI STEP acc
1020 DRAW TO xc+((COS a)*w),yc+
    ((SIN a)*d)
1025 NEXT a
1030 IF a-acc<(2*PI)
1035 LET a=(2*PI)
1040 DRAW TO xc+((COS a)*w),yc+
    ((SIN a)*d)
1045 END IF
1050 END PROC
```

As a bonus, it can also draw polygons by having the width and depth the same and setting a to the number of sides!

Finally, a little modification of Robert Brady's Findit program (8/2). Lee used this procedure to search for procedure names. When he had typed in the program, however, he had used the INV key on SAM to highlight the lines with DEFPROC in, so that they were easy to see. This, in turn, inserts bytes in the line before the DEFPROC code, which fools Robert Brady's program into ignoring the procedure altogether. The additions in 'findit2' (and it's still pretty short) will show all, whether control codes are present or absent.

```
50015 LET t=xxx
50042 IF PEEK (t+4)=202 THEN GO
      TO Proc: ELSE IF PEEK (t+4
      )=234 THEN GO TO Lable
50044 IF PEEK (t+4)=200 THEN GO
      TO Func
50046 LET a=PEEK (t+4)
50048 IF a<24 THEN LET t=t+1: GO
       TO 50020
50049 LET xxxt=xxx
50050 LET xxx=xxxt,xxx=xxx+DPEEK
      (xxx+2)+4
50090 LET xx=5,xx$="",xxxt=xxx:
      IF xxx<>t THEN LET xxx=t
```

Turn to page 18.

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New Tricks For *The Secretary*

By:- Rev. Tony Kinch.

Revelation Software's *The Secretary* represented a major advance on anything that had previously been available for word-processing on the SAM. It did, however, have a number of frustrations, and from the operator's point of view I did not find it as good as 'Tasword 3' had been on the Spectrum (although a good deal better than the hastily put together SAM version of 'Tasword 2').

Many of these irritations have been overcome in the new version 1.5 of *The Secretary*, and the fact of having a substantial BASIC program does allow for changes to suit the needs of the operator.

With the original *Secretary*, I had added a number of routines in order to give me sub-directories when using MasterDOS. I found that without them the screen soon became clogged up with file names, and so I provided for nine named directories. Some of these, 'Letters', 'Agendas & Minutes', 'Reports' and 'Orders of Service' (in a Church office) are in constant use and allow both my Secretary (real flesh and blood one that is) and me to keep track of files easily. My modifications worked on my original SAM (two drive, 256K, ROM 3.0), but when I bought my second SAM (Elite, one drive, 512K, ROM 3.1), the modifications caused corruption to the working screen.

Fortunately, at almost exactly the same time as I bought my second SAM, Revelation Software produced the new version of *The Secretary* which incorporated a number of the modifications which I had made to the original program, including the provision of sub-directories. These were, however, not quite to my requirements, because I need the fastest possible movement from one sub-directory to another, and I need the operation of the program to be as simple as possible for my secretary who does not have any knowledge of Basic. We do not need the full read-out of the directory, and found that it slowed up operation of the program as well as cluttering up the screen. I have therefore made some modifications and additions to the program as supplied in order to achieve the following:-

1. The program defaults to the most widely used sub-directory rather than the root directory, although a very simple modification (described later) will make the root directory the default.

2. Other sub-directories are selected from a directory menu in the same way as other menus.

3. It is possible to transfer straight from one sub-directory to another without having to select the root directory first.

4. With the use of the 'X: EXIT/SAVE' option in the store menu, the program automatically reverts to root directory in order to leave the program.

5. If sub-directories are not present, an error-trapping routine creates the nine

sub-directories.

6. The directory menu allows for sub-directories to be named, and for the name to be changed on demand.

7. A procedure is introduced which ensures that the customization of the program is always saved in the root directory.

It must be noted that these modifications require the use of MasterDOS. They will not work on SamDOS. They do, however, work on both my SAMs.

The program is modified as follows:-

Make a new working copy of *The Secretary* by following the 'S: SAVE SECRETARY' routine in the 'MISC' menu and the instructions in the manual. Put your original copy of *The Secretary* in a safe place and make sure that the modifications are only saved to your new working copy.

Break into Basic by holding down ESC and pressing RETURN.

Create the new routine 'saveprog' by entering the following line:-

```
10050 DEF PROC saveprog: DIR="/"
      : SAVE OVER "Secretary" LIN
      E 10: END PROC
```

When SAVEing the program simply type in 'savprog' (without the inverted commas) and press RETURN. The program may be saved this way as often as required without any risk of its being saved into a sub-directory

Change the line numbers of lines 10, 15 & 20 to 20, 25 & 30 respectively and add two new lines 10 & 15, so that lines 10 to 30 read as follows:-

```
10 ON ERROR crdy
15 LET cdy=1:ldy
20 ON ERROR GOTO 9900
25 DEFAULT mp=2+(8 AND PEEK 2
   3732>30)
30 mconfig: CALL 82155
```

If, on loading, the sub-directories are not present on the disc, they are created by the procedure 'crdy' (create directory). The current (default) directory is defined as '1' and the names of the nine sub-directories are loaded by the procedure 'ldy'. Any sub-directory can be defined as the default by altering the first statement of line 15. If the root directory is required as the default, line 15 should read:-

```
15 LET cdy=10:ldy
```

Next, remove line 7500 which gives a full readout of the current directory, and alter lines 7505 and 7510 so that they read as follows:-

```
7505 LET dy$="D"+STR$ dv+":\"
7510 chdy: Let a$=STR$ dy: GOTO
      9610
```

Line 7520 becomes redundant and is removed. This routine selects the sub-directory and establishes the name of the sub-directory which will be printed in the message box by line 9610.

In order to prevent an error message if there is an attempt to EXIT *The Secretary* program whilst a sub-directory is in use, line 7620 is modified by an instruction to enter the Root directory (DIR= "/":) immediately before the command BOOT, so that the line reads as follows-

```
7620 mes "EXIT THE SECRETARY -
     Save Text Y/N/A ?":GET a$:
      IF a$="n" OR a$="N" THEN
     DEVICE d1: DIR= "/": BOOT:
      ELSE IF a$="y" OR a$="Y"
     THEN LET ft=NOT PI: GOTO 7
     860: ELSE IF a$="a" OR a$=
     "A" THEN GOTO VAL "75": EL
     SE GOTO VAL"7620"
```

Line 9610 is modified in order to give the directory name in the message box as follows:-

```
9610 CLS 1: GOSUB wind: LET z=P
     EEK DVAR 17: POKE 97382,ST
     R$ dv: IF PEEK (pra+30 ) T
     HEN LET dy$=(dy$ AND PEEK
     DVAR 17)+("D"+STR$ dv+":\"
      AND NOT PEEK DVAR 17): IF
      Z<>0 THEN LET dy$="D"+STR
     $ dv+ :"\"+STR$ z:mes "Cur
     rent Directory="+dy$+TRUNC
     $ dn$(z) : MENU 10: ELSE m
     es "Root Directory": MENU
     10
```

At the end of the existing Basic program, a number of new procedures are created in order to give effect to the modifications. The procedure to save the program at line 10050 has already been mentioned.

Line 11000 gives the procedure crdy (create directories) as follows:-

```
11000 DEF PROC crdy: DIM dn$(10,
      12): LET dn$(10)="Root": F
      O R dy=1 TO 9: OPEN DIR ST
      R$ (dy): NEXT dy: END PROC
```

The procedure to load the directory names and establish the default directory is created at line 11010:-

```
11010 DEF PROC ldy: DIR ="/": LO
      AD "dirname" DATA dn$(): I
      F c dy=10 THEN END PROC: E
      LSE LET dy=cdy: DIR =STR$
      dy: END PROC
```

Lines 11015 to 11065 create the procedure chdy (change directory) as follows:-

```
11015 DEF PROC chdy
11020 CLS: GO SUB wind: mes "cur
      sor keys move: space-chang
      e name: RETURN-select dire
      ctory"
```

This clears the screen, re-establishes the margin & tabs ruler at the foot of the screen and gives the message in the message box.

The remainder of the procedure creates the menu window and draws a box around it, prints the menu within the window, allows the up and down cursor keys to move around the menu, and provides for the appropriate directory to be selected, either by pressing RETURN for the directory indicated by the highlighted directory name, or by entering any directory number: in the same way as all the other menus. By pressing the space bar the procedure also allows for the highlighted directory name to be changed.

```
11025 CSIZE 8,8: PEN 2: P LOT 5,
      14: DRAW 126,0: DRAW 0,83:
       DRAW -126,0: DRAW 0,-83:
      WINDOW 0,16,9,19: PEN 7: F
      OR dy=1 TO 10: LET dn=dy:
      IF dn=10 THEN LET dn=0
11030 PRINT AT dy,1; PAPER 1;" "
      ;dn; TAB 4; dn$(dy): NEXT
      dy: LET dy=cdy
11035 PRINT AT dy,4; PAPER 2;dn$
      (dy): GET zz$: IF zz$="0"
      THEN DIR =" /": LET dy= 10
      ,cdy=10: CSIZE cz,8: CLS 1
      : END PROC
11040 IF zz$=" " THEN cdn: GOTO
      11035
11045 IF CODE zz$>48 AND CODE zz
      $<58 THEN DIR ="/": LET dy
      =VAL (zz$),c dy=dy: DIR =
      STR$ dy: CSIZE cz,8: CLS 1
      : END PROC
11050 IF CODE zz$=13 THE DIR ="/
      ": CSIZE cz,8: CLS 1 : LET
       cdy=dy: IF dy<10 THEN D I
      R =STR$ dy: END PROC: ELSE
       END PROC
11055 IF CODE zz$=11 THEN PRINT
      AT dy,4; PAPER 1; dn$(dy):
       LET dy=dy-1: IF dy<1 THEN
       LET dy=10
11060 IF CODE zz$=10 THEN PRINT
      AT dy,4; PAPER 1; dn$(dy):
       LET dy=dy+1: IF dy>10 THE
      N LET dy=1
11065 GOTO 11035
```

Finally, the procedure 'cdn' (change directory name) allows for any directory name to be changed by use of the space bar in the change directory menu. Each time a new name is entered the file 'dirname' is automatically saved to disc.

```
11070 DEF PROC cdn: INPUT "enter
       name for this directory:
      ";dn$(dy)
11075 DEVICE d1: DIR ="/": SAVE
      OVER "dirname" DATA dn$():
       END PROC
```

I do hope readers will find these changes useful.

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A NEW DRIVE FOR *SAM*

SAM Drive Upgrade Kit Reviewed By:- Nev Young.

When I was at the last Gloucester show I decided to get one of the new disc upgrades for my SAM Coupé as my master drive had started to play up a little. I already had a supply of standard 3½ inch drives so the interface kit was all I needed. I must point out that I do not normally take issue 1 of anything. I find it better to let someone else find the mistakes in the book but on this occasion, well this was my experience.

In the packet are: 1. a ten page set of instructions, 2. a pack of chips and 3. a pack of bits.

I must say that being many years since I undertook a 'home construction kit' I was delighted not to find anywhere the instructions 'you will need a *whatnot* that can be obtained at your local *whatnot* dealer' The kit is complete (OK, I lie, you need about 18 inches of thin wire). All you need is a SAM, the kit, your own tools and sóme time. At the request of that nice mister Brenchley, who did ask me to check out the kit and the instrtuctions, (otherwise I wouldn't have written this would I), I followed the instructions to the letter except when the letters were wrong.

The instructions start at section 3, the first two being the intro and a tools required list. Section 3 is a list of what you should have.

Now you get stuck in to the next section 'How to rip your SAM apart without doing any damage' This really is detailed right down to which screws to remove, how to avoid damage to the sticky out bits at the back and most important how not to shred the keyboard connectors.

Then you get the bad news; Section 5 'Replacing the connector' which begins 'This is the most difficult part of the whole project'. That man, he do not tell lies. Removing the connector and replacing it with the new one is an absolute pig of a job. It took me a good hour to do it. Bearing in mind that, if you mess this bit up you could make a real mess of the drive two connector of the SAM, perhaps made me proceed with more caution that I would normally use. I feel confident to say I could do another in half the time, but I have no need to upgrade my other SAM (yet).

Once more the instructions are clear and precise, even to the extent of recommending the method to use to remove the old connector.

I took the decision to fit my new drive as drive 1, so I had to modify the SAM circuit board as described in the next part of the instructions. The words were correct. The diagram was wrong with point C indicating the wrong through hole, but I understand that this was corrected before they started shipping kits to all but a few early customers. If you also decide to make this change then I would recommend a change in procedure. To break the copper tracks, instead of using a knife to scrape the track away, I find that using a small

diameter drill with my fingers cuts a very neat little holes in the track and there is less chance of slipping and cutting a few dozen other tracks by mistake. (I think this is Sod's law #437. You can cut and cut and cut at the track you want to break and it wont, but if you slip every track within two feet of the knife gets cut).

OK, now the board is safely seated back in the base of SAM. So onto the next bit. To build the FDI (Floppy Disc Interface) board. There were a couple of typos in this section but none that would cause any problems. Fifteen minutes and it was built.

I knew things were going too well. Now I started to have problems and they were all my own fault. Serves me right for trying to be smart I suppose. You plug the FDI into SAM and plug the cable into your drive. It wouldn't go. When I looked at the cable, the connector for the drive was upside down with the key at the top. My drive wanted the key at the bottom. So being a smartie I disassembled the connector and put another one the right way up for my drive. BIG MISTAKE. I failed to notice that the cable did not go to pin one of the connector but to pin two so when I reassembled it I did it wrong. Result, nothing worked, long chats to Bob Brenchley, much concern about my SAM. (I think that one is Murphies law). When I finally got the cable and connector done right it worked. If I had just forced the connector onto my drive or filed the key off I wouldn't have given myself so much grief.

I am told that this will be pointed out with future kits [*it is, Ed.*]and you will even be able to get a cable with the key on the other side on request [*you can, Ed.*]. Anyhow, I now have my lovely SAM working once more. All I have to do is re-assemble it and put on the cover plate. I have to say the drive cable does make things rather fiddly to get back into place, but it can be done, and once it is all in place it does look as if it was meant to have been there from the start.

Case back on, keyboard connected and back to work. Ignoring the time I wasted with the connector, just a little over two hours work. The instructions do say this is only for the experienced constructor and I have to agree with this. Building the FDI and connecting of the cables is a piece of cake, but the removal and replacement of the connector on the main SAM board is not recommended to anyone who has not done that kind of thing before.

All in all I am very pleased with thekit and my new drive.

From Page 11.

```
50110 LET xx=xx+1: IF PEEK (xxx+
      xx)<>CODE ":" AND PEEK (xx
      x+xx)<>13 THEN GO TO 50100
      : ELSE PRINT #stream;FN Dp
      k2(xxxt);" DEFPROC ";xx$:
      GO TO 50050
50130 LET xx=5,xx$="",xxxt=xxx:
      IF xxx<>t THEN LET xxx=t
50150 LET xx=xx+1: IF PEEK (xxx+
      xx)<>CODE "=" THEN GO TO 5
      0135: ELSE PRINT #stream;F
      N dpk2(xxxt);" DEF FN ";xx
      $: GO TO 50050
50170 LET xx=5,xx$="",xxxt=xxx:
      IF xxx<>t THEN LET xxx=t
50190 LET xx=xx+1: IF PEEK (xxx+
      xx)<>13 AND PEEK (xxx+xx)<
      >CODE ":" THEN GO TO 50180
      : ELSE PRINT #stream;FN dp
      k2(xxxt);" LABEL ";xx$: GO
      TO 50050
```

And that's all for this month. Please send all your snippets for Short Spot to:-

John Wase,
Green Leys Cottage,
Bishampton, Pershore,
Worcs, WR10 2LX.

See you next month.

SAM
A Personal View

By:- David Spark.

Maybe I'm old fashioned. I buy music on tapes, I have to stand up and walk before I can change the channel on the TV and I still use an 8 bit computer in the nineties. Please accept my apologies, my third sin is unforgivable. I try to disguise this fact by using a mouse, extra memory and an auto-boot ROM, but when it comes down to it, my SAM Coupé is only half a 16 bit.

I have seen and used some of the 16 & 32 bit machines out on the market and as far as their performance goes, I can see why SAM owners are jealous. A number of SAM owners have been pleading for our computer to be up graded. They see it as the only way that the SAM can compete. A cute idea, but...

West Coast should be concentrating on manufacturing and promoting, to restore the public faith in the SAM after both MGTs and SAMCOs demise. Right now, of all times, West Coast can't afford to be radically redesigning the machine.

If West Coast did have lots of figures before the decimal point printed on their bank balance, then they might just launch a 16 bit SAM, but think of the consequences...

The average 16 bit machine would probably cost around £300 and the price would be much higher if the machine wasn't in mass production, this would mean that they would be 'launching-a-new' a vulnerable machine into a market which has been filled for years by the ST and Amiga. Remember the PC 200, it was compatible with loads of IBM software and came with 512k memory, a 8Mz 8086 (16 bit) processor, a mouse and a neat looking keyboard, but it still flopped. Remember the revamped Amstrad CPC computer, the Amstrad games console, the Archimedes range and CDTV, none of these made it big, despite having larger than life specs.

If a super SAM was released and became a monster hit the software publishers would produce programs for that machine, not OUR machine. The SAM Coupé would be killed off, then I would need another computer...

What does worry me is that the SAM isn't being used to its full potential, this is clear judging by the amount of letters being published from people wanting SAM to be up graded. Look at the back of your SAM. You've got ports for MIDI, Joysticks, Mouse, Light Pen, and of cause the Euroconnector for external hardware.

I just don't understand, SAM has the hardware, but not the software. The MIDI system on the ST helped it become popular, why can't the same happen to SAM. DRiVER has been launched as the GUI for the SAM, how much support will it receive? The SAM mouse has been out for a while now and there is only a small number of products available for it. Whereas the other ports on the SAM have some support, the Light Pen port has nothing. Over three years and no one has released anything to make use of it.

Imagine how quick it would be to select the icons on DRiVER, imagine how easy it would be to use it on Flash! or SAMPaint and just imagine what your ST mates would say if you could use it to 'click' little Lemmings!

Its up to the software companies in the SAM world to write software that makes use of existing hardware. And of cause its at this point that software companies say: 'Not enough units sold' or 'there's no demand' and there's no demand because there's no software. I have come to expect this attitude from the large software companies, but from SAM companies?

Would it really cost so much to enable software under development to use the 1Mb memory and the SAM Mouse. Games could become so much more playable if a mouse was used, those who have tried dribbling the ball in Future Ball will know that keyboard isn't the best solution...

As far West Coast Computers are concerned, they need to promote everything that SAM has to offer. That means pushing the SAM as a real computer, not just a Spectrum compatible. They need to rase awareness, so people will realise that the SAM is still going, despite the economic gloom that effected all the UK manufactures. Maybe all of this would be an easier job if the SAM had better specifications, but computers like the Atari Falcon, the Commodore A1200 and the 486 PC didn't just appear from nowhere. They were developed from older products and the capital and brand loyalty were found from their previously released 8 bit machines. And as for the SAMs specifications, it was only a few years ago that Bruce Gordon won the European Computer Leisure Industries award for 'Hardware Innovation' for his work on the SAM Coupé...

Editor's note: Items giving a personal viewpoint like this are always welcome. Come on readers, there must be more of you out there who have something you want to say to other readers.

sinclair

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PLUS D DIRECTORY & SAM CHANGER

By:- Alan Cridland.

My PLUS D directory changer program uses the information stored in the first thirteen bytes of the actual program file, as well as the directory.

You can hide a file, or recover it, and change its name, when Total Recall was published in ***FORMAT***, several years ago it helped me expand my checking routine's. As I use BetaDOS, I'm not sure what changes would be needed to make the program work on G(+)DOS or Uni-DOS.

I also include a SAM version of directory changer, which is useful but a simpler version. I think readers should have some fun improving this to make more use of SAM's excellent Basic.

Listing 1. The BetaDOS Version.

```
10 REM VERSION 2.3
20 REM DIRECTORY CHANGER
25 CLS : PRINT AT VAL "10",INT
    PI;"PLUS D DIRECTORY CHANG
   ER"
30 INPUT " Enter Number Files(
   Max 110) ";w
35 IF w>VAL "110" THEN GOTO VA
   L "30"
40 LET c=SGN PI: LET j=VAL "25
   744"+(w*VAL "256")
50 IF w-(INT (w/VAL "2"))*VAL
   "2"=NOT PI THEN LET w=INT (
   w/VAL "2"): GOTO VAL "70"
60 LET w=INT (w/VAL "2")+SGN P
   I
70 PRINT AT VAL "10",VAL "3";"
    Press Any key to Start ":
   PAUSE NOT PI
80 LOAD @SGN PI,NOT PI,SGN PI,
   VAL "26000",w
90 FOR k=VAL "26000" TO j STEP
    VAL "256"
100 IF PEEK k=NOT PI THEN GOTO
    VAL "240"
110 REM print directory n.
120 CLS : PRINT PAPER SGN PI; P
    EN VAL "7"; AT INT PI,NOT P
    I;c;"/ ";
130 FOR p=SGN PI TO VAL "10"
140 PRINT CHR$ PEEK (k+p);
150 NEXT p
160 PRINT " FILE TYPE ";PEEK k'
    '
165 FOR g=VAL "211" TO VAL "219
    ": PRINT PEEK (k+g);" ";: N
    EXT g: PAUSE VAL "50"
170 PRINT AT VAL "10",NOT PI;"T
    o Change Program Type Press
     C "'''"  To Hide Program P
    ress H "'''" Any Other Key
    For No Change ?"
180 PAUSE NOT PI
190 IF INKEY$="h" OR INKEY$="H"
     THEN POKE k,128
200 IF INKEY$="c" OR INKEY$="C"
     THEN GOSUB VAL "350"
210 PRINT #SGN PI;"Change Progr
    am Name ( Yes/No ) ?"
220 PAUSE NOT PI
230 IF INKEY$="y" OR INKEY$="Y"
     THEN GOSUB VAL "280"
240 LET c=c+SGN PI
250 NEXT k
260 SAVE @SGN PI,NOT PI,SGN PI,
    VAL "26000",w: CAT SGN PI
270 STOP
280 REM change program name
290 DIM a$(10)
300 INPUT "Enter New Name";a$
310 FOR l=SGN PI TO VAL "10"
320 POKE k+l, CODE a$(l)
330 NEXT l
340 RETURN
350 LET o=NOT PI: LET t=k+VAL "
    13": LET s=k+VAL "14": LET
    ft=PEEK (k+VAL "211")
360 LET hb=PEEK (k+VAL "210"):
    IF hb=VAL "255" THEN LET hb
    =NOT PI
370 LET su=VAL "256"*PEEK (k+VA
    L "11")+PEEK (k+VAL "12")
```

```
380 LET fl=PEEK (k+VAL "212")+V
    AL "256"*PEEK (k+VAL "213")
    +VAL "65536"*hb
390 IF ft=NOT PI AND su=VAL "97
    " THEN POKE k,VAL "5": RETU
    RN
400 IF ft=NOT PI AND su=VAL "25
    8" THEN POKE k,VAL "9": RET
    URN
410 LOAD @SGN PI,PEEK t,PEEK s,
    VAL "64200",SGN PI
415 FOR u=VAL "64200" TO VAL "6
    4208": LET o=o+PEEK u: NEXT
     u
420 IF o=NOT PI THEN PRINT ''"
     No File Name Only !": POKE
     k,VAL "8": RETURN
425 FOR g=64200 TO 64208: PRINT
     PEEK g;" ";: NEXT g
430 LET x=PEEK VAL "64200"
440 IF x=NOT PI AND PEEK VAL "6
    4203"=VAL "203" AND PEEK VA
    L "64204"=VAL "92" THEN POK
    E k,SGN PI: RETURN
450 IF x=SGN PI THEN POKE k,VAL
     "2": RETURN
460 IF x=VAL "2" THEN POKE k,IN
    T PI: RETURN
470 IF x=INT PI AND PEEK VAL "6
    4203"=NOT PI AND PEEK VAL "
    64204"=VAL "64" AND PEEK VA
    L "64205"=NOT PI AND PEEK V
    AL "64206"=VAL "27" THEN PO
    KE k,VAL "7": RETURN
480 IF x=INT PI THEN POKE k,VAL
     "4": RETURN
490 IF ft=NOT PI AND PEEK (k+VA
    L "214")=NOT PI AND PEEK (k
    +VAL "215")=NOT PI AND fl>N
    OT PI THEN POKE k,VAL "10":
     RETURN
500 IF ft=NOT PI AND su=SGN PI
    THEN POKE k,VAL "11": RETUR
    N
520 IF ft=NOT PI AND PEEK (k+VA
    L "218")=NOT PI AND PEEK (k
    +VAL "219")=NOT PI AND fl>N
    OT PI THEN POKE k,VAL "10":
     RETURN
530 IF ft=NOT PI AND su>=VAL "2
    " THEN POKE k,VAL "6": RETU
    RN
540 POKE k,VAL "8": RETURN
9999 CLEAR : SAVE d*"CHANGER" L
    INE VAL "20"
```

Listing 2. The SAM Version.

```
 10 REM SAM DIRECTORY CHANGER
 20 REM VERSION 2.
 30 CLS #: LET h=0: LET c=1: L
    ET z=10
 40 INPUT "Enter No. of Files
    on Disc! ";b
 50 LET v=b-(INT (b/20))*20
 60 LET b =INT (b/20)
 70 IF v=0 THEN LET b=b-1
 80 LET v=INT (v/2)+v-(INT (v/
    2)*2)
 90 CLS : PRINT AT 10,4;"Press
     Any key to Start": PAUSE
    0
100 FOR h=0 TO b
110 IF h=b THEN LET z=v
120 FOR i=1 TO z
130 READ AT 1,h,i,30000
140 FOR k=30000 TO 30256 STEP
    256
150 IF PEEK k=0 THEN GOTO 280
160 REM print directory n.
170 CLS : PRINT c;"/ ";
180 FOR p=1 TO 10
190 PRINT CHR$ PEEK (k+p);
200 NEXT p
210 PRINT " FILE TYPE ";PEEK k
220 PRINT AT 8,0;"To Change Pr
    ogram Type Press C "''"Any
     Other Key For No Change ?
    "
230 PAUSE 0
240 IF INKEY$="c" OR INKEY$="C
    " THEN GOSUB 420
250 PRINT #1;"Change Program N
    ame ( Yes/No ) ?"
260 PAUSE 0
270 IF INKEY$="y" OR INKEY$="Y
    " THEN GOSUB 350
280 LET c=c+1
290 NEXT k
300 WRITE AT 1,h,i,30000
310 NEXT i
320 NEXT h
330 DIR 1
340 STOP
350 REM change program name
360 DIM a$(10)
370 INPUT "Enter New Name";a$
380 FOR l=1 TO 10
390 POKE k+l, CODE a$(l)
400 NEXT l
410 RETURN
420 LET t=k+13: LET s=k+14
430 READ AT 1,PEEK t,PEEK s,50
    000
440 LET x=PEEK 50000
450 POKE k,x
460 RETURN
9999 SAVE "d1:CHANGER" LINE 20
```


2001 A Message In A (Time) Bottle

By:- Matrio D'Forest.

Oh boy! My head hurts, that party last night was a real hum-dinger. Still, back to work today I suppose. Now what's in the diary for today? Let' see...

JANUARY 1ST 2001. Oh yes, I've got that article to write for ***FORMAT***. Now what can I possible put in this months issue...

Now that's an idea. Just been watching TriTV Channel 3651 and caught their review of the 20th Century. So, as this is the first day of the new century - and I can't think of technical matters in my befuddled state - I think I'll take the easy way out and write them a short history of *The Format Years*.

Where to start, that is the question (at least, that is the question The Bard of Avon should have had one of his characters ask - much more important than '2B OR NOT 2B', always thought that was a bloody stupid bit of program logic).

Right, you all know that Format Publications is one of the biggest multi-national publishing and computer conglomerates the world has ever known. But have you ever stopped to wonder how it got so big? Well it all really started to happen way back in '95. The second Computer Revolution was just starting - people had got wise to the con of high priced NinSaga games and were looking round for something a little more 'in keeping' with the financial climate of the post Thatcher years. Suddenly Lord Sinclair of Cambridge (then just simply Uncle Sir Clive - or was it Sir Uncle Clive - oh forget it before we get too distracted) announced the ZX95. A cheap computer (£39.99) with 48K of memory, nice small rubber keys, colour graphics and a nice *industry standard* edge connector for expansion.

You should have seen the mags fighting to get a review machine. Personal Computer World beat the others, but then they always did with Sinclair's babies.

Anyway, the first reviews appeared. "Every home should have one" they said, "even if your house number is twenty-two" and the stampede was on.

FORMAT reviewed the machine in its May issue and, with great insight I may add, pointed out that not only was the machine Spectrum compatible - IT WAS A 48K SPECTRUM.

OK, so all the chips had been wiped clean - so those other poor mags hadn't even guessed that there was a *mere* Z80 inside, but ***FORMAT*** knew better and hastily started announcing the launch of NEW ZX95 SOFTWARE and added *ZX95 INSIDE* to the front page of the next issue.

W.H.Smiths took 15,000 copies of that first ZX95 issue of ***FORMAT***, by the September issue the print run was over 120,000 copies.

As the first ZX95 software house Format Publications had big problems, the police actually tried to shut them down after the four day long riots in

Gloucester following the release of pre-Christmas titles in October 1995. But production improved and they never looked back.

Of course the relaunch of the SAM in 1996 as the SAMSON made things even better. West Coast Computers pulled the same trick as Sinclair and just never let on what was 'under the bonnet' so to speak. Sales climbed higher each month.

Programming became the in-thing. Teenage Turtles and Power Rangers had nothing to offer against MasterBasic. Machine Code wiped the floor with Bart Simpson [an ancient cartoon character with a serious attitude problem - if you're to young to remember him].

By the end of 1996 Format Publications had won a Queen's Award for Exports, just about every prize and award that magazines can get - including the Nobel Prize for Literature (although that was more for their tax returns than the mag itself) and the Government even organized a special New Year Honours list to make Format's big white chief a lord at the same time as Uncle Clive gets his reward. Two computer Lords at one go - real recognition for the industry.

All was not plain sailing I hasten to add. The stories in the News Of The World, linking Lord Bob with a local computer club for under privileged (but over endowed) teenage girls, were never proven. Nor were the claims of several women that he had fathered their love children. "He wouldn't have the energy" was the only comment his wife gave reporters.

And so the company grew. Offices were opened in several major UK towns (including Much Binding In The Marsh and Milton Keynes) and in many overseas capitals as well. The world was beating a path to ***FORMAT*** 's door.

The rest you probably know already. But I have a little space left so I might as well give you a run-down.

1995	
Apr	ZX95 Launched.
May	First Review in ***FORMAT***.
Jun	Format Publications launch ZX95Soft.
Oct	Riots in Gloucester over new games shortage.
1996	
Feb	SAMSON Launched.
May	ZX95 sales top 1million.
Sep	Major TV campaign for ZX95.
Oct	SAMSON adopted as official computer by NATO.
Dec	Peerages announced.
1997	
Mar	Format/Sinclair merger.
Apr	Format/West Coast merger.
May	Format takes over Apple.
1998	
Feb	Format launch new TV station.
May	Format TV/BBC merge.
Sep	New ZX98 computer. 10 Gigabytes of memory, 1024 million colours, all for £99.99.
1999	
Jun	Lord Bob gives 100,000 ZX95s to UN to help third world kids learn programming.
Oct	UN orders all non Z80 based computers scrapped.
2000	
Jan	Format takes over ailing IBM.

What the future has to bring is anyones guess. But I will lay odds that the first publishing company to establish office on Mars will have the initials ***FP***...

YOUR LETTERS

Dear Editor,

As a Spectrum, and now SAM user, I really enjoy my hobby of trying to develop more and more complex routines to handle the adminstration of my business and social affairs on my computer. With the introduction of ***FORMAT*** Magazine, which I read avidly, and with MasterDOS and Master-Basic, it really is quite marvellous what we can now do on a 'home' computer.

A few years ago, I had brief access to an old 8086, which I used for word processing, but little else, because I did not like the GW Basic. The one advantage, however, of this very old unit was the monitor, providing a very clear image of all characters and background. My SAM was being served by a normal 14" colour TV, and there was really no comparison. Black and white settings were OK, but as soon as I wanted any colour combinations, print became quite difficult to see, with ghosting and shadows, and a kind of false-movement on the display. But, I struggled on!

A recent advert in ***FORMAT*** from JRC Computer 'Repairs, set me to thinking about obtaining a monitor for the SAM, and as I was intent upon visiting the show in Gloucester in October, I hoped to be able to see a unit working. Although John Critchley had several monitors with him, there were none connected to a SAM, so doubts lingered.

The unit that interested me most was the MicroVitec Cub 452, but there was no connecting cable to test it. However, I accepted John's assurances and his offer to fix me up with a cable, if I could let him have a layout of the SCART socket on the SAM. Over to the ***FORMAT*** stand to borrow the Technical Manual, scribbled down the connections on a scrap of paper and back to John Critchley. No problem, he said, so I bought the monitor and a day of two later the cable duly arrived.

The result is unbelievable. No flicker, perfectly clear characters and background, and so good that I acquired another similar CUB to go on a second unit. Wonderful!

However, I soon discovered that the screen does not display all the possible colour combinations on SAM's palette, and I imagine that it is only showing the primary and secondary colours and not the shades of grey. The technical manual shows a connection for Bright TTL, but connecting it to the one remaining lead of the six coming through from the DIN plug makes no difference.

Can you help, or can any of your readers, who have been faced with, and have solved, this particular problem? From my own point of view the loss of those colours is not that important, but I am sure it would be unacceptable to anyone trying to use commercial software on such a monitor.

Yours sincerely, David Joyce.

Anyone help David? We will pass on any letters. ***Ed.***

Dear Editor,

I hope you don't mind me putting pen to paper yet again, but you asked in the most recent ***FORMAT*** if people were frustrated with the SAM's graphic

capabilities and although my own programming (and artistic) skills haven't given ME cause to complain about the SAM's weaknesses yet, my own weakness in these areas are still my greatest handicap. I have noted a growing trend of dissatisfaction with this machine, I think this is a shame, because it's not as if programmers have explored the SAM's capabilities in anything like the depth those of the Spectrum were explored.

I know that there are those very clever programmers whose sole purpose in life seems to be to push a machine to it's limits by writing those amazing 'DEMOs' and I applaud their skill, but at the end of the day a five minute showcase of technical programming ability is not what makes a good program (what would have happened if something like Windows had just been a clever demo). I understand that they want faster this and more colours that but it's no good complaining that a machine won't run their latest brain-storm of a 57-way multi-lingual scroller over a 2 billion colour display of rotating giraffes because beyond a user saying "golly what a jolly clever programmer" what's the point. But then perhaps that IS the whole point....

I've heard the argument that their skill is in showing just what a machine is capable of, but it's a false message because as we all know from the interlace graphics effect used on a Spectrum, you can use the machine to create the illusion of far more colours than it's supposed to be capable of, but it takes all the power it has just to do that - so where's the practical application?

Demos should be practical demonstrations of useful things that the machine's capable of (after all, who wants to know that a car is capable of 250 miles per hour on the straight at Brands Hatch if, in order to achieve that, everything not needed - steering and so on - have been removed to make it possible. This does not give us a true impression of what the car is really capable of, does it?)

I've begun hearing about a new hardware project called the MiDGET (which you alluded to in the last ***FORMAT*** and which was being discussed at the last show) and have been collecting all the information I could gather (on the basis of curiosity, you understand).

From what I can find out it seems that this thing is a clever add-on which will use a host computer as the User Interface, (disc drives & keyboard) but otherwise does it's own thing in terms of processing and (apparently amazing) graphics.

This is being heralded by some people as the apparent saviour of the 8-bit world and it all sounds very impressive.

I can appreciate the wonderful options this would offer to owners of 8-bit machines, particularly as it seems it can be used with just about any machine, but I don't think it is the answer to anyone's idea of unsatisfactory SAM graphics.

If people are REALLY dissatisfied with the SAM, personally I'd prefer to see something that will enhance the SAM, not something that uses the SAM as a keyboard for what sounds suspiciously like a console (especially given the very console-like price of £150 that is being quoted).

Not, you understand, that I think there is anything wrong with consoles - they have their place - and I, like many others, have idly looked at them because of their fast scrolling gamesplay, but are games written especially for the MiDGET likely to compete with those written for the existing consoles and are they likely to be much cheaper than those written for the NINSEGAs?

I think it would be a shame if those who are frustrated with the SAM don't make the very best of it's strengths rather than build a plug-in computer that bypasses the heart of the SAM, together with what they consider to be it's weaknesses. They might just as well have bought an Amiga (while they can) or the latest IBM clone that'll be out of date in no time at all.

Surely the skill of a good programmer is in finding the machine that he or she wants to work on and, accepting that that machine will have it's limitations, making the best use of it's strengths (and weaknesses) to produce software that people will want to buy?

The MiDGET sounds like a fascinating project and I wish those working on it well, and if it comes out and is useful and not too expensive I may well save up for one, but I'd much rather have true SAM related hardware so that I don't have to start learning to program yet another machine in whatever form of BASIC it uses (and own yet another machine that I can't program in Machine Code yet...).

Sorry to dump all that in your direction folks but you did ask!

Please feel free to print/not print/edit/delete/deny responsibility for any of the above, as you see fit, I just wanted to express my thoughts on this subject as there may be others who feel the same way.

Thanks for the latest ***FORMAT*** by the way, it sounds trite, but I really DO look forward to it every month. I'm still trying to track down the Midi Sequencer, I wrote to Tim Humphries, but I've had no reply yet - fingers crossed.

All the best.

Yours Sincerely, Matthew Gallagher.

Dear Editor,

Re: SAM Coupé Keyboard.

I tried a full clean under the keyboard using Tandy's degreaser. As you can see - it made no difference. I therefore enclose a cheque for a new keyboard at £12.95. Martyn isn't too concerned, the offending keys don't figure in any of his games!

I am sorry to read of Marks' troubles and wish him a speedy and full recovery. Having retired, I wish I still lived in Newport as I would liked to have offered some help, especially during the pre-Christmas rush. Please contact me if there is anything I can do from this remote part of England.

Yours Sincerely, G.R.Smith.

Many thanks for your kind offer of help and for your good wishes for Mark.

Dear Editor,

I'm writing this letter to get some information about the interface 'SAMBUS'. I'd also like to know what plans West Coast has for SAM interfaces in the future.

1. Is 'SAMBUS' completely out of production and if so, why?
2. Will West Coast consider selling 'SAMBUS' as an upgrade KIT like the disc upgrade?
3. Any chance of a harddisc for SAM, or plans to use existing disc/printer interfaces? I know it takes a long time to test and produce the required DOS but with BETASOFT's great MasterDOS I'm sure they are ready to go ahead with such a project.

Maybe it would be possible to make an interface that let people use their own standard harddisc with the SAM.

The reason for this letter is my attempt to get a hold of SAMBUS for my Comms/1Meg. has failed (Instead I've got a Twoup) but now with DRiVER (and DRiVER Extras with its Clock/Calender) I'm ready to try getting some kind of SAMBUS/Clock/Calender interface.

A comment to Mr Andrew Birkett and Mr Mark Sturdy: YES please, Mr Birkett write an article about Comms. I myself has access to modems and would like to know how to program the Comms interface.

I would like to support Mr Sturdy in the request for more interviews and

West Coast Computers

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Below you will find details of the full range of SAM hardware now available.

CODE	DESCRIPTION	PRICE
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W1010	**SAM élite** - 512K - Single Drive. The latest computer in the SAM family. 512K RAM, Single Drive Machines *now with* Built-in Printer Interface.	£199.95
W1011	**SAM élite** - 512K - As above but with Dual Drives fitted.	£259.95
W1012	**SAM Coupé Special Pack**. 256K with external disc/printer interface. A special limited offer, ideal for anyone upgrading from PLUS D as you can use your existing disc drive. Because these machines have been in storage for some time there may be some slight marks on casing but all are fully tested and guaranteed.	£109.95
	INTERFACES (work with both SAM élite and SAM Coupé unless otherwise stated)	
W1101	SAM Disc Drive Upgrade. Have a second drive fitted to your SAM élite or Coupé. Factory fitting and return postage included in price. Ring 0452-412572 for instructions on how to return your computer.	£79.95
W1121	SAM Coupé Disc Upgrade Kit - all you need to upgrade to a twin drive machine. Needs good soldering skills to fit. You also need de-soldering tool to remove one of the connectors on the main SAM board. Comes complete with all instructions, components and a top quality 3½" drive mechanism.	£64.95
W1122	SAM Coupé Disc Upgrade Kit - as above but without drive mechanism.	£29.95
W1102	External Parallel Printer Interface. (for Coupé)	£24.95
W1103	RS232/Parallel Interface (COMMS). (for Coupé)	£34.95
W1104	1 MegaByte External Memory Pack. (Needs MasterDOS to run from Basic).	£89.95
W1106	SAM Mouse System. Interface, Mouse and Software. Plugs into mouse port on rear of SAM. More and more software now works better if you use a mouse.	£39.95
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W1108	Internal 256K Upgrade (for older SAMs with only 256K of memory)	£34.95
W1109	*TWO^{UP}* allows two interfaces to be connected to SAM expansion port at same time. *Special Offer* - Save £5 if ordered at the same time as any SAM interface.	£24.95

Prices valid until 1st March 1995. E.& O.E.

Ordering: Write your order clearly on a reasonable sized piece of paper, state your name; address and phone number and quote your INDUG number is you are a member). **Payment**: Cheques and UK Postal Orders, should be made payable to **West Coast Computers**.

Postage & Packing: Prices now include UK P&P. Overseas customers please write for quote on Insured Airmail Delivery Service.

BUSINESS AS USUAL

The problems at Blue Alpha, caused by Mark's illness, have caused slight delays but we are doing our very best to ensure that these do not affect our customers unduly. Alternative arrangement have been made for assembly work, so normal service will continue.

We are also making special arrangements for repairs.

future plans both for software and hardware (hard disc, hard disc!!)

Yours Sincerely, Peder Laustsen.

The SAMBUS is currently out of production, the main reason being that West Coast could not get the special Clock Chip that Bruce Gordon designed the board around. The TWO^{UP} was not launched as a replacement, although it is true to say that sales of the SAMBUS had more or less stopped by the time it appeared. As to the longer term, WCC do intend to do a clock board, possible to fit inside SAM.

A hard disc interface is already in existence but a hard-DOS is still some months away. Keep reading ***FORMAT*** and we will let you know as soon as there is something worth talking about. ***Ed.***

Dear Editor,

How about a compilation article with BEST EVER excuses for not doing things e.g. Holidays, Power Cuts, Thunderstorms and general disasters with mail, computers etc.,

Yours Sincerely, John Blomley.

Dear Editor,

I was most interested to read in this month's ***FORMAT*** that Bill Richardson had obtained an extensive supply of Sinclair Z88 portable computers, together with peripherals, and is able to make them available at a very attractive price.

I could very well be tempted, but before lashing out £116.33 (the price including VAT), I should need rather more information about the Z88's compatibility with SAM, and I daresay that Spectrum users would feel the same.

Can, for example, the Z88 download data to the SAM via the RS232 port on the interface? Are the appropriate cables readily available, either off the shelf or to order? And will this work on both the original Coupé and the new Elite (I have both in my office)? I note that WCC's current advert shows the RS232/parallel interface as only for the Coupé. Does this mean that there is no serial interfacing available for the Elite?

If the Z88 is able to download data successfully to the SAM, how compatible is the data with existing SAM programs? In particular, how compatible is the data from the Z88's built-in wordprocessor with current SAM programs: Secretary, Tasword, Wordmaster and SC_Word Pro? In the end, code is code is code, and provided it can be successfully downloaded it should be possible to write suitable converters to fit it in with other programs.

Perhaps someone might be able to write a short article for ***FORMAT*** - or perhaps one exists in a back copy - which could cover these points.

Yours Sincerely, Tony Kinch.

The Z88 uses a Z80 chip, has a serial interface built-in and runs its own suite of programs for wordprocessing, database, spreadsheet etc. It also uses a sub-set of BBC Basic. Beyond that, I look to some nice reader to write us an article with more details. ***Ed.***

Dear Editor,

Re Letters, November '94, the reply to Mark Sturdy's letter. You stated that Lerm Software was still in business. I can confirm that Lerm has, infact, gone out of business. I sent off for a catalogue in July but I received a note stating they had closed down; a shame, as I have tried some of their programs and they have come in very useful.

Secondly, I sent off for a PLUS D interface a while ago, and with it came a catalogue of Datel's products; however, no Spectrum products were mentioned; another one leaving the Spectrum boat, perhaps?

Anyway, although I am very impressed

with the PLUS D, it does have one minor problem; the edge connector is not carried through to allow any more add-ons to be connected. I would be very grateful if you could tell me if any companies still make accessories for the Spectrum to allow two peripherals to be connected at once.

That's all for now. I may be contributing to Short Spot in the future.

Yours Sincerely, Matthew Westcott.

I will investigate the LERM side as soon as I can, in the meantime you could try BG Services for a two-way connector for your PLUS D. ***Ed.***

Letters may be shortened or edited to fit on these pages although we try to edit as little as possible.

This is **YOUR** letters page so it is up to you to fill it with interesting things. Come on, get writing, any subject even remotely related to computers. Just keep things as short as you can so we can fit in as many as possible each month. Please write clearly or type your letters. Send them to the address on page 3 or fax them to us on 0452 380890.

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